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(54) **VEHICLE RIDE-HEIGHT DETERMINATION FOR CONTROL OF VEHICLE AERODYNAMICS**

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(57) **ABSTRACT**

A system is configured to control aerodynamics of a vehicle. The vehicle includes a vehicle body having a front end facing an ambient airflow when the vehicle is in motion relative to a road surface. The system includes an adjustable aerodynamic-aid element mounted to the vehicle body. The system also includes a mechanism configured to vary a position of the adjustable aerodynamic-aid element relative to the vehicle body and thereby control movement of the airflow. The system additionally includes a sensor configured to detect a height of the vehicle body relative to a predetermined reference frame and a controller configured to receive a signal from the sensor indicative of the detected vehicle body height. The controller is also configured to determine a ride-height of the vehicle using the detected vehicle body height and to regulate the mechanism in response to the determined ride-height to control aerodynamics of the vehicle.